

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A method of controlling the coupling of multi-platform reservoir and network simulators comprising:

synchronizing the advancement through time of the reservoir and network simulators executing on a computer;

translating converting each of [[the]] a plurality of hydrocarbon fluid streams to a common fluid model of a controller by converting pseudo-components of each of the plurality of hydrocarbon fluid streams to based on a super-set of corresponding pseudo-components used in the reservoir and network simulators executing on the computer;

obtaining a coupled simulation using the converted hydrocarbon fluid streams; and

performing a production operation based on simulations of the reservoir and network simulators generating a plan based on the coupled simulation, wherein the plan is implemented to improve production of a the multi-platform reservoir, the simulations performed on the computer using the converted hydrocarbon fluid streams.
2. (Currently Amended) A controller for coupling multi-platform reservoir and network simulators comprising:

means for synchronizing the advancement through time of the reservoir and network simulators;

means for translating converting each of [[the]] a plurality of hydrocarbon fluid streams to a common fluid model of the controller by converting pseudo-components of each of the plurality of hydrocarbon fluid streams to a super-set of based on corresponding pseudo-components used in the reservoir and network simulators;

means for obtaining a coupled simulation using the converted hydrocarbon fluid streams; and

means for performing a production operation based on simulations of the reservoir and network simulators generating a plan based on the coupled simulation, wherein the

~~plan is implemented to improve production of [[the]] a multi-platform reservoir, the simulations performed using the converted hydrocarbon fluid streams.~~

3. (Currently Amended) The controller of claim 2 additionally comprising means for ~~applying production and injection constraints to the coupled simulation by apportioning [[the]] global production and injection constraints between simulation tasks of the reservoir and network simulators.~~
4. (Original) The controller of claim 3 additionally comprising means for balancing reservoir and surface networks.
5. (Canceled)